



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/770,169A TIME: 11:20:53

DATE: 11/21/2002

Inpu Set : A:\UC053.001A.2.txt

Output Set: N:\CRF4\11212002\I770169A.raw

```
4 <1105 APPLICANT: Baxon, Andrew
             Σhang, Ke
       1120: TIPLE OF INVENTION: IMMUNOGLOBULIN CLASS SWITCH
             RECOMBINATION
     10 (130) FILE REFERENCE: UC053.001A
     11. <140: CURRENT APPLICATION NUMBER: 09/770,169A
C--> 13 <141> CURRENT FILING DATE: 2002-11-04
                                                                   ENTERED
     15 (160) NUMBER OF SEQ ID NOS: 108
     11. 41 / SOPIWARD: FastSEQ for Windows Version 4.0
     19 02100 SEP IN NO: 1
     20 -0211: DENGTH: 27
     ŽI KŽIJO TYPE: DNA
     2: 32.3: ORGANISM: Artificial Sequence
     24 KR. DO FEATURE:
     21 -021 S OTHER INFORMATION: Artificial Sequence = synthetic peptide
       HA OL SEDJENJE: 1
     30 therresgge eggesquate accggag
                                                                          27
     30 02701 FER DI NO: 2
     37 -CHILL DENGTH: E1
     BI CELEDIA
     30 (2013) PREANTEM: Artificial Sequence
     ST SERVICE FEATURE:
     👊 🖟 🕾 ITHEK INFORMATION: Artificial Sequence = synthetic peptide
     38 KICIO SEQUENCE: 2
     of North Ciragi gagaiggest Stacactices to
                                                                          31
    41 KBIDE SEQ ID NO: 3
    41 KRID LENGTH: 22
    43 KMIRO IYEE: DNA
    44 KRIBO CREANISM: Artificial Sequence
    46 KM DO FEATURE:
    47 <23 % OTHER INFORMATION: Artificial Sequence synthetic poptide
    49 <4000 SE(MENCE: 3
     fluctagaagett tattgeggta gt
                                                                          2.2
     51 <2100 SEQ ID NO: 4
    UB <311> LENGTH: 24
    54 KRAR TYPE: DNA
    18 KRIBE (RGANISM: Artificial Sequence
    !/ <?!/ O> FEATURE:
    58 <233 OTHER INFORMATION: Artificial Sequence = synthetic peptide
    60 <4000 SEQUENCE: 4
                                                                          24
    61 ogachagett agittetatt ggto
```

63 KRIO. SEQ ID NO: 5 64 <211> LENGTH: 28

RAW SEQUENCE LISTING

FATENT APPLICATION: US/09/770,169A TIME: 11:20:53

DATE: 11/21/2002

Input Set : A:\UC053.001A.2.txt

Ditput Set: N:\CRF4\11212002\I770169A.raw

65 <2125 TYPE: DNA 66 ₹213≥ ORGANISM: Artificial Sequence 63 <220> FEATURE: €9 *223> OTHER !NFORMATION: Artificial Sequence : synthetic peptide 71 <400> SEQUENCE: 5 2.8 72 ambagatigg of alactigag obtwaget 74 <1102 SEQ 10 10: 6 75 <?115 LENGTH: _€ 76 <212% TYPE: DUA 7/ CABS OEGANICM: Artificial Sequence 79 <2/20> FEATURE: 90 <223% OTHÉR INFORMATION: Artificial Sequence | synthetic peptide : <40 😘 SEQUENCE: 6 26 Es amplitudagy to sepangga ggtgtg En <215% SEQ ID NO: En <311 / LENGTH: . 4 FF \$2120 TYPE: ICIA EA K313> OESANESM: Artificial Sequence FIRE FEATURE: 91 %2.75 OTHER INFORMATION: Artificial Sequence = synthetic peptide 94 24) DE GEQUENCE: 7 34 gagestagas tammaggetg äact 24 90 <211: 3EQ ID NO: 5 91 KANTA LENGTH: 3 9 - KBLE - TYPE: DOM 30 K211 > OFGANISM: Artificial Sequence 1:1 KEEDS FEATURE: 102 KARE- OTHER INFORMATION: Artificial Sequence = synthetic peptide 104 K4000 SEQUENCE: 9 10% entertrage quatogact cacactecet 30 1 0 (210) SEQ 1: NO: 9 108 K2110 LENGTH: 28 1 OF KRIZE TYPE: DNA 110 KB130 ORBANIUM: Artificial Sequence 112 KASO FEATURE: 110 KARBO CTHEE INFORMATION: Artificial Sequence = synthetic peptide 118 (110 SEQUENCE: 9 28 11.6 asgetttatt geogragitt atcacagi 118 killer SEQ ID NO: 10 119 (211) LENGTH: 27 1.0 KRIZE TYPE: DNA 1.1 <213: CRMANI.M: Artificial Sequence 17.3 <220) FEATURE: 1:4 <223 OTHER INFORMATION: Artificial Sequence - synthetic peptide 1:6 K4CD: SEQUENCE: 10 1:7 ocaadatoto caggoaggoa gaagtat 27 11.9 <210% SEQ ID NO: 11

170 <211> LENGTH: 29 151 <212> TYPE: DNA

LATE: 11/21/2002

RAW SEQUENCE LISTING

PATENT AFFLICATION: US/09/770,169A TIME: 11:20:53

Input Set : A:\UC053.001A.2.txt

Dutput Set: N:\CRF4\11212002\I770169A.raw

138 K2125 ORGANISM: Artificial Sequence 134 < 220 - FEATURE: 1 3 < 422 - 1THEE INFORMATION: Artificial Sequence - synthetic peptide 1 47 K40C * SEQUENCE: 11 2.9 1 3 consultant of additional facabacter 11) 021(+ FE, 10 NO: 12 141 (2011 IEXISTH: 25 142 (21) - IYEE: DNA 143 (218 CE ANISM: Artificial Sequence 145 KANT - FRATURE: 144 < 2.4 OTHER INFORMATION: Artificial Sequence = synthetic peptide 14 : GOG - SE, JENCE: 12 14 thigh cause cat agreate actggag 27 1°1 d.11 Sh. 10 No: 13 1 . KUTT LENGTH: At 1 \sim 4 MHz . TYPE: DNA 1 4 KALE OF MANUSM: Artificial Sequence 1 · d. d. d. d. ETHLE.TUTE.E.: 100 CALL CTHEE INFORMATION: Artificial Sequence synthetic peptide 11 + 44 @ + SEMURISE: 13 2.5 lee approximent daacecques oggag 16. KBD - SEQ 10 NO: 14 160 CALL LENGTH: AL 10; K.T.S. IYEE: DNA 10: CCL: CR:ANISM: Artificial Sequence 10: CCLC: ERATURE: 108 OLD - CTHER INCOMMATION: Artificial Sequence = synthetic peptide 1 (-0400 - \$50, UHNTE: 14 $1/1 \cdot q^{*+}$ quitagre no quagrigt a 21 17 - 3010 - Shop 110 NO: 15 1.4 -0.11 - IEUGIH: 05 175 HOUSE TYPE: DNA 1 + William CE-ANISM: Artificial Sequence 1 F ON O FEATURE: 1.. CTB CTHER INFURMATION: Artificial Sequence = synthetic peptide 1/1 CFC SELUFNCE: 15 25 $1\cdot\mathbb{S}$ therething agominately godaa 174 4.10 - SEQ II NO: 26 1-1 - LII - DENGTH: 14 1 % C. TE - TYPE: DNA 1-1 C. N. OF CAMISM: Artificial Sequence 169 C.D.G. FEATURE: 18 C. Mak OTHER INFORMATION: Artificial Sequence = synthetic peptide 1 % KIUCH SEQUENCE: 16 2.4 148 tetadacang ggdasotgot catt 195 < 10 SEQ 1D NO: 17 196 k. 13% LENGTH: 23

137 < 120 TYPE: DNA

198 < 13 OKGANISM: Artificial Sequence

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/770,169A

DATE: 11/21/2002 Time: 11:20:53

Input Set : A:\UC053.001A.2.txt

Output Set: N:\CRF4\11212002\1770169A.raw

201 203 204 216 217 208 209	-228 FEATURE: 223	29
21.3 21.4 21.4 21.4 21.2	<pre>%::200 OTHER INFORMATION: Artificial Sequence - synthetic peptide %::000 SE.UENTE: 1* groundt a dissachtsa ac %::100 SE, DD DE: .9 %::100 LELGTE: 40 %::110 LELGTE: 40</pre>	2%
	<pre>&d1% OA MANISM: Homo sapiens &40% SEAUENCE: 1+ tighttpare tigheotigge tighetigge tighetigge tighetigge tighetigge &d1yr SEA TH No: 20 <d110 &d110="" 40="" dength:="" iffe:="" ma<="" pre=""></d110></pre>	40
	<pre>&U150 OF GANCON: Homo sapiens &4000 SF_UENCE: 20 :gggctgag: taggctogtg gaagdcagga cgagcagggg &U150 SE_UENCE: 01 &U110 LEUSTE: 09 &U150 TYPE: DNA</pre>	40
25 234 341 241	<pre>C3130 OF ANISH: Homo sapiens < 1000 SEQUENCE: 21 cagrealarg toancargoe gloageagae gageaggga &3100 SEQ IF NO: 32 <3110 LEGGTH: 40 <3.120 TYPE: DNA</pre>	39
. 44 . 46 . 47 . 44	<pre>K. 130 OF HANISM: Homo sapiens K4000 SE, UENCE: 2.0 Maskaggot gasetggget gasetggget K. 160 SE, It NC: 0.3 KU110 LENGTH: 40 KU120 TYPE: DNA</pre>	40
5.57 - 5.77 - 5.72	<pre>8.160 CECANISM: Homo sapiens 904000 SECUENCE: 25 0:maacage</pre>	40
260 260 26-	<pre><!-- 150 ORGANISM: Homo sapiens +4400--> SEQUENCE: 24 trantcaget cotagattt ggcaggaget gggtagttgc <!-- 10--> SEQ ID NO: 25</pre>	40

PATE: 11/21/2002

RAW SEQUENCE LISTING

FATENT APPLICATION: US/09/770,169A TIME: 11:20:53

Input Set : A:\UC053.001A.2.txt

Outrus Set: N:\CRF4\11212002\I770169A.raw

206 <211> LENGTH: 40 267 <212> TYPE: DNA		
A69 <213 ORGANISM: Homo sapiens		
270 <400: CLOUENCE: 25	enturquat sea	40
- 271 sigaacteug figagotgag bigagotgag - 273 <210, BED ID NO: 26	Cugggeraag	(
774 <211: IENGTH: 40		
FV5 <212: TYPE: DNA		
.76 <213: OFTANISM: Homo sapiens		
.73 <400 SEQUENTE: 26		, ,
- 279 tighactoog fitgagotgag bagagoagag - 281 <2100 EFP TD ND: 27	godattgagg	4 (i
182 <111 IFNGTH: 40		
.83 <21.1 TYPE: INA		
84 < 1 t OF DANISM: Homo sapiens		
J86 <400 SEÇUENTE: 27		
	gccactgagg	4 (i
.83 <.1 = 3FQ ID NO: 28		
E91 4.117 (FNSCH: E9 E91 4.1.5 (YEE: DNA		
191 <11 OF GARLEHOMS Sapiens		
.94 <40 ○ SEQUENCE: 28		
. 9; tigaktadas faagoggtist agogggotga	. get gaget.g	39
.97 s. 1 to 3m; to mo: 29		
293 <. 11: IFNSTH: 40		
299 K. 1. D. INEE: ONA		
101 < 1 < OF SANUSM: Homb sapiens 302 <40 : SEQUENCE: 29		
- 202 kau 2 argumnen: 29 - 203 tigretgage igagegggte ageoteetge	taccaaaaa	4 ()
- 305 K. 1 : EFQ ID No: 30		•
306 K. 11: NENGTH: 40		
307 k.1up TYFE: ONA		
308 %.10 ONGANISM: Homo sapiens		
310 <40 : SEQUENCE: 30		4 Ci
- 311 gudiogtosa agrigoagtgo agodtootgo - 313 k.100 SFQ ID NO: 31	tgccaggaag	4 (1
514 KI112 LENGTE: 40		
BIE W. 1.5 TYES: DNA		
Fle <. 155 ObjANISM: Homo sapiens		
318 KACO SEQUENCE: 31		
319 andmagetiga cocagoagag cagaggocac	tgaggagetg	4 (+
32: <110> SLQ ID NO: 32		
328 < 11> LENGTH: 40 128 < 11> TYPE: DNA		
524 < 130 ObGANISM: Homo sapiens		
32€ <4C0> SEQUENCE: 32		
327 anggagotga cocagoagag ctgagogggg	ccgagcggg	40
329 < 10> SEQ ID NC: 33		
530 €: 11> LENGTH: 39		

VERIFICATION SUMMARYDATE: 11/21/2002FATENT AFPLICATION: US/09/770,169ATIME: 11:20:54

Input Set : A:\UC053.001A.2.txt

Output Set: N:\CRF4\11212002\I770169A.raw

1:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date